DO THE STATISTICS OF THE CONCENTRATION OF WEALTH IN THE UNITED STATES MEAN WHAT THEY ARE COMMONLY ASSUMED TO MEAN?

By Allyn A. Young
Cornell University

As I begin, I can imagine the critic asking: "But precisely *what* are the statistics of the concentration of wealth in the United States commonly assumed to mean? And where are these statistics and what are they?" Now although the title of this paper is not of my own phrasing, I am willing, if needs be, to defend it. We are a long way, of course, from knowing at all accurately just how property and incomes are distributed among the twenty-one million or more families of this country. We do not even know whether the average family income is as low as $1200 or as high as $1600. We are not sure whether the share of the aggregate national income going to the richest 2 per cent of our families is more nearly a fourth, or a fifth, or a sixth of the total. The poorest half of our families may possibly get a fourth or perhaps three tenths of the national dividend—just what the proportion may be is uncertain.

The picture is blurred, but its general outlines are nevertheless unmistakable. We are reasonably certain that such full knowledge as we might gain from a complete and accurate census of incomes would merely give precision and definiteness to our impressions. There would be, we are confident, no general upsetting of the notions we have already formed with respect to the state of things. Yet, this being so, the wonder is that most of us seem to accept the situation with a large measure of complacency. If it is true that the richest 10 per cent of our families get a third, or anything like a third, of the national dividend, and that the poorest fourth get incomes of less than $600, or at most less than $700, per family, it might seem that we should not have to look further for an overwhelming indictment of our present economic system. Facts like these, some persons allege, must spell revolution.

Very likely we sometimes find it easy to push these troublesome statistics aside, saying to ourselves that viewing matters relatively, rather than absolutely, conditions are not so bad. Greater inequalities than these have existed in other times and other countries. Despite the relatively high average family income in the United States, incomes seem to be distributed here with rather less inequality than in some of the other great industrial nations.

In Europe one must go to the relatively poorer nations, somewhere back of the first rank in industrial advancement, to find incomes that we can say with any certainty are apportioned more evenly than incomes in the United States. But this is evading the issue. If our economic life is diseased, it is small comfort to know that the disease is world-spread. And are we ready to admit our willingness to submit the account of our own social and economic state for comparison on even terms with the reports from older countries? Has much of our talk about democracy, equality of opportunity, and "a fair field and no favor" been idle? Is it for nothing that men from the old countries have built up a new civilization here, leaving behind them, as they thought, most of the handicaps of inherited privilege, of class distinctions, and of a long accumulation of economic advantages, unevenly distributed? Or is there something to be pondered in Mr. H. G. Wells's observation: "Mr. Britling could explain away the faults of England readily enough. . . . But there in America was the old race, without Crown or Church or international embarrassment, and it was still falling short of splendid"?

If wealth were unmistakably more concentrated here than elsewhere in the world, we should, very likely, be more alarmed about the situation than we now seem to be. But there are other things beside downright obtuseness and an easy satisfaction with our standing relative to other nations that may affect our attitude. In particular, I suggest, the sharp edge of these facts is blunted by the following considerations: (1) The picture they give is that of a cross-section of a changing, shifting current, rather than of anything that might be interpreted as a definite and final outcome of forces now at work. (2) The meaning of inequality or concentration in the distribution of wealth and incomes is itself a matter of much uncertainty. (3) It is probable that complete and accurate statistics of the general sort that have already been used would still leave out of account some of the most pertinent facts. (4) Although we know that there is a high degree of inequality in the distribution of wealth, and although we know something of the general outlines of this distribution, the margin of uncertainty with respect to the facts is, nevertheless, so great that they have little compelling power. I shall discuss these points in order.

I

One does not have to shut one's eyes to the gravity of the immediately pressing problems growing out of the unequal distribu-

tion of wealth in order to maintain that things are not so radically wrong as they may seem to be. One may retain a large measure of confidence in the fundamental wholesomeness of a competitively-ordered society, and yet concede the concrete injustice of existing conditions.

During the last one hundred and fifty years the production of wealth has grown faster than the population. And new productive methods, new kinds of wealth, new forms of business organization, have followed, one upon another, in rapid succession. There are few varieties of income which can be expected to keep pace, year after year, with this process of restless change. In a dynamic society more is produced than has to be imputed, in the form of earned income, to the efforts of the rank and file of the productive army. Economic progress yields what is, for the time being, a disposable surplus. The shares in this surplus are the principal stakes in the great game of business enterprise. Here are the roots of some of the most striking phenomena of the concentration of wealth, and here there are the widest disparities between service and rewards. There are prizes here for efficiency, for alertness, for foresightedness, and for luck and for unscrupulousness as well. Here are the chief sources of the gains of monopoly, of financial manipulations, and of strategic competitive advantages. Here are found most of those capitalized income-yielding opportunities which we know under such names as franchise values, corporate excess, and good will. The fruits of progress are not at first apportioned equally among all the coöperating producers, nor do they go, in major part, to the pioneers of science and industry who have made the largest effective contributions to the knowledge that makes progress possible. They go, rather, to those who actively and successfully contend for them.

But there come, out of it all, increased demands for labor, for savings, and for productive agents of all kinds. Unless the supply of some productive agent is increasing with undue rapidity nothing can prevent it, as the volume of output grows, from commanding a higher price in the market. Monopoly may crumble and other business advantages may be snatched away by competition, but the forces working toward the diffusion of the product operate relentlessly and surely. Every bit of ground gained by the rank and file is tenaciously held, and becomes a starting point for yet further progress.

This impressionistic picture of an economic process must, for

present purposes, stand without the support of a detailed analysis. But it is, I believe, in essential harmony with the doctrines of most of the schools of economic theory. Its relation to the interpretation of statistics of the distribution of incomes and of property must be fairly apparent. Such statistics give a cross-section view of things; they speak for a given year or a given moment of time. But the operation of economic forces is not thus synchronized. The concentration of wealth that exists at any one time in a progressive society is in part an outcome of the fact that the productive army does not advance in even formation in its attacks upon the new sources of wealth. There is an advance guard and there are laggards and stragglers. No one knows just how far the concentration of wealth would be reduced, just how far the forces tending toward diffusion would operate effectively, if economic progress should cease, if our dynamic society should crystallize into a static state. But that distribution would be much evener seems fairly certain. The concentration of wealth is in part one of the unwholesome fruits of progress. If concentration and diffusion are processes going on simultaneously, statistics show us merely the extent to which, at any one time, the forces making for concentration are ahead of the forces making for diffusion.

It may be objected that this is to no purpose, or at any rate beside the main point, that present inequalities in the distribution of wealth and the social problems growing out of them are none the less real. It is, of course, small comfort to those who are getting less than their fair share of the present product to know that they or their successors are likely to get more, particularly if along with this assurance there goes the probability that new inequalities are to be built up about as fast as the old ones are levelled down.

Now it is perfectly true that to impute these inequalities to one cause rather than to another does not lessen their gravity. But the right diagnosis of a disease does have an important bearing upon the choice of remedies. And so the right interpretation of the statistics of the concentration of wealth must strengthen the convictions of those of us who are opposed to anything like an arbitrary leveling down of fortunes or a revolutionary change in the general structure of our economic life. It must give us confidence that we are on the right road in our efforts to control monopoly, to restrict some of the abuses of corporation finance, to

do away with unfair privileges and advantages, to establish and enforce fairer standards of competition, to strengthen the bargaining power of the weaker, to reduce the extent to which accrued inequalities are transmitted from one generation to another by inheritance, and, by controlling immigration, to check the tendency of the process of diffusion to become a process of dilution. It may well be that this road is longer and has more turnings than we now imagine. But there is nothing in what we now know about the distribution of wealth to suggest that this road—the road toward equality of competitive opportunity—is not the right one.

II

I pass to a more technical question. What is the precise meaning of the concentration of wealth? By what standards shall we measure it? In general, I think, statisticians have been accustomed to use "concentration of wealth" and "inequality in the distribution of wealth" as loosely interchangeable terms. Now any departure from perfect equality in the distribution of wealth means *inequality*. But is *concentration* to be defined so broadly as this? Wealth might be distributed unequally, without there being any amassing or concentration of any relatively large part of it in the hands of any one group or portion of society. Concentration means, then, a particular kind of inequality in distribution. And moreover, while, statistically speaking, any perceptible degree of centralization must be deemed concentration, yet the social problem of the "concentration of wealth" is very certainly the problem of its undue or excessive concentration. But we have no definite standard of what constitutes justifiable, permissible, or normal concentration. And so the statistics are made to indicate merely the gross departure from a condition of absolute equality in distribution. One has to be on one's guard, therefore, against imputing to them a significance which possibly they may not have.

There ought to be agreement, it would seem, about what constitutes *equality* in the distribution of wealth. Pareto's interpretation of the meaning of his own well-known index of inequality in the distribution of incomes is based on the expressed assumption that when the number of persons with incomes of less than a given size increases relatively to the number of persons with higher incomes, the inequality of income distribution diminishes. I do not quarrel, as some have done, with this definition of relative equality and relative inequality in distribution. Given a definite income

range, with small incomes more numerous than large incomes, Pareto's hypothesis is, in general, consistent with the common notion of the meaning of equality in distribution. But, so far as I know, it has not been noticed even by his critics that Pareto, brilliant mathematician that he is, made a curious slip in interpreting the relation of his index to his definition of inequality. His index does not increase, as he supposed, with what he deemed inequality in the distribution of incomes, but decreases. It can be used, as Benini and Bresciani have used it, in this inverted fashion. At best, however, it is a poor index, being merely a rough measure of the evenness with which income receivers are distributed through the income range. It gives no simple and definite standard of comparison. The index becomes unity, for example, when the relative numbers of the persons receiving incomes of stated sizes are inversely proportional to the squares of their incomes. How far, in general, the notion of an even distribution of income receivers throughout an income range differs from the common notion of equality in income distribution may be inferred from the fact that, with an absolutely even distribution of income receivers over any income range, the richest fourth of the population would get seven sixteenths of the total income, while the poorest fourth would get but one sixteenth.

For the most part, however, equality of distribution is interpreted literally; that is, it is taken to mean absolute uniformity in the distribution of income. Thus, when a statistician throws his estimates into the familiar form that assigns a certain (large) proportion of the aggregate income to a certain (small) proportion of families, the comparison inevitably implied is with a state of things in which 50 per cent of the families get exactly 50 per cent of the aggregate income and 10 per cent of the families get 10 per cent of the income. And so with Dr. Lorenz's graphic device for representing the way in which such proportions depart from the line of absolutely equal distribution. So, too, with the index of concentration which Professor Corrado Gini has suggested as a substitute for Pareto's, but which increases when Pareto's decreases, and which becomes unity when one income receiver gets just as much income as another. So also with Gini's other index, which takes into account the sum of the differences between each income and every other income. This index, it is interesting to note, may be interpreted as a summary arithmetical expression of the degree of concentration denoted by the Lorenz

graph. So, finally, with all of those measures, such as the average deviation, probable error, and standard deviation, which indicate in a general way the extent to which incomes as a whole differ from the average income. The significant thing is that all of these ways of expressing the degree of inequality in the distribution of wealth use as a standard or reference of comparison an absolutely equal and uniform distribution.

Some or all of these measures are useful in comparing the distribution of wealth in different countries or at different periods. But none of them is of much help in forming a judgment with reference to the degree of undue or excessive concentration that may exist. The degree of departure from absolute equality, however measured or stated, must itself be referred, if not explicitly, then in some vague way, to a standard of normal or justifiable concentration. A dead level of uniformity is neither practicable nor desirable as an ideal of distributive justice.

A concrete example may give point to this consideration. Suppose that incomes in an imaginary society were distributed symmetrically around the modal or most common income, in the form of a normal frequency distribution. This might represent either one of two things: (1) a normal distribution of ability and a perfect proportioning of income to ability; (2) a random or chance distribution of incomes, under the influence of complex but unbiased forces. This second condition would be consistent with the existence of real equality of opportunity, broadly understood, coupled with the presence of a myriad of small circumstances that might deflect one towards a lower or a higher portion of the income range. Now suppose that the average family income is $1500 and that half of the families get incomes that are within $200 of this average. Under such conditions the richer half of the families would get 58 per cent of the aggregate income and the poorer half would get 42 per cent. Increase the dispersion of the distribution somewhat, so that half of the incomes are between $1000 and $2000. Then 70 per cent of the aggregate income would go to the richer half of the population, and 30 per cent to the poorer half. Increase the limits between which half of the incomes fall to $800 and $2200, and the portion of the aggregate income assigned to the richer half of the population becomes 78 per cent, leaving 22 per cent for the poorer half.

I do not think that Dr. King's recent estimates err in the direction of underestimating the present inequality in the distribution

of incomes in the United States. He assigns about 27 per cent of the aggregate income to the poorer half of the families and 73 per cent to the richer half. But this is a slightly smaller degree of concentration than would be given by a normal frequency distribution with half of the incomes falling between $900 and $2100. This suggests that no single or general statement of the degree of concentration can give, by itself, an adequate notion of the extent to which the existing distribution of wealth has to be deemed unsatisfactory. And instead of tabulating the statistics in the misleading form of the proportions of aggregate income or property in the hands of stated proportions of the population, it is better to use a simple frequency distribution, showing the relative numbers of income receivers or property owners in the different income or property classes. Such frequency distributions can be adequately described and compared, one with another, and with various ideal schemes of distribution by the use of the constants devised by Pearson for measuring their spread, skewness, and curvature. Such a handling of income statistics serves to focus attention upon the really important things, which are the upper and lower limits of the income scale and the manner in which income receivers are distributed between these limits. The *amount* of concentration, the amount of departure of a condition of uniform incomes, does not matter so much as does the particular *form* of the income distribution underlying the concentration. An identical general degree of concentration may result from a fairly good and a very bad distribution of incomes.

The worst thing in the present situation is undoubtedly the extreme skewness of the income frequency curve. The mode—the most common income magnitude—is very close to the lower limit of the distribution. Then the income curve descends rapidly as the higher incomes classes are brought under review, reaching a condition of relative attenuation at incomes of only a few thousand dollars, but stretching on for an absurdly great distance before the maximum incomes are reached. The problem of poverty and the problem of great fortunes are the problems of the lower and upper limits of this income curve. But, seen rightly, the problem of great fortunes is only part of the larger problem of the general skewness of the curve, the problem, that is, of the extremely small average differences in the incomes of persons in the lower part of the income range and the unduly rapid increase of these average differences as the view is shifted to successively higher income

groups. Put concretely, that 10 per cent of the families in the country get possibly three fifths or two thirds of the aggregate income ceases to appear principally as a problem of large fortunes, when it is realized that to include the richer 10 per cent of the families, one has to go down to somewhere between the $1200 and $1800 income levels. The most serious aspect of the distribution of property and incomes in this and other countries is not the presence of a larger or smaller degree of "concentration," but the general distortion of the whole income scheme, reflecting as it undoubtedly does the presence of a high degree of inequality in the distribution of opportunity.

III

I do not propose to discuss here the meaning and proper interpretation of all of the various available or possible sources of information respecting the distribution of property and incomes. Some of these matters, I understand, are to be dealt with by Dr. King in the paper which is to follow. Nor can I stop to attack the difficult general problems of the proper definition of wealth and of income for the purpose in hand. But I want to mention two points which seem to me to have an important bearing upon the degree of inequality in distribution reported by the statistics.

In the first place, what disposition shall be made in income statistics of the appreciation and depreciation of capital values? I do not refer here to such appreciation and depreciation as comes from improvements and betterments on the one hand and wear and tear on the other, but to the changing money value of unchanged things. These changing capital values, it is true, are in large measure a result of changes in the probable future income-yielding power of the things valued. But it does not follow that to count appreciation as income involves double counting. If savings are to be counted as income, and I believe that they must be, for the purposes of income statistics, appreciation in the money value of income-yielding goods or rights, being closely akin to savings in a number of important respects, must also be counted as income. It is no part of the annual product, as usually defined, but it is part of the annual *distribuendum*. It enters into the annual changes in the relative economic positions of the different members of society. Any one income receiver can convert his share, if he wishes, into money income and then into real income. It is impossible and, I think, not at all necessary to distinguish between

such appreciation as merely records the shrinkage in the purchasing power of the dollar and such appreciation as comes in other ways. So long as appreciation, of whatever sort, is distributed in other manner than in proportion to the other elements in current incomes, it has to be taken into account in income statistics, or at least in the interpretation of the significance of such statistics.

The census estimate of national wealth for 1912 exceeds the similar estimate for 1900 by about a hundred billion dollars. Some of this—I doubt that it is more than a third—represents an increase in the national inventory measured in terms of physical units, together with the increase in the unit value of short-lived equipment and products—the current assets of the nation. The balance of this increase consists very largely of net appreciation in the value of land and other durable forms of wealth. And there is an enormous amount in franchise values, monopoly rights, and good will and other vendible competitive advantages that does not enter into the statement. Altogether, it is likely that the recent average annual addition to the national *distribuendum* on account of net appreciation has amounted to as much as five and possibly as much as seven billion dollars, making a difference of perhaps 20 or 25 per cent in the national income statement.

One of the defects of British income statistics is that they do not cover gains from increases in capital values, even when these gains are realized in actual sales, except where speculation is carried on as a business. Now the effect of the inclusion of these items upon the apparent degree of inequality in the distribution of incomes will depend very largely upon whether they are counted as income only when realized by actual sale or set down yearly as accruals. Take the case of a farmer who bought a hundred-acre farm ten years ago. Since then it has been increasing in money value, as many farm lands have, at the rate of $2 per acre per year. He now sells it with a gain of $2000. If all of this profit is set down as income for this year, it lifts him, for the once, into the higher income groups and increases the general skewness of the distribution of income for the year. But if accruals had been counted at the rate of $200 a year for ten years the increase would have been unlikely to have carried him up above the average income for the country. In fact, the skewness of income distribution might very possibly have been reduced. Moreover, if there were a million other farmers similarly conditioned, there

would be the choice between counting a million moderate gains or an average of perhaps a hundred thousand large gains annually. And so with those enormous increases in the values of business equities which have been a very important source of large fortunes, the method of accruals will increase the skewness of the income curve very much less than will the method of realized sales. For the purposes of income statistics there can be little doubt that the method of accruals should be preferred. To wait until the farmer's increased land values are realized in sales exaggerates the farmer's real position in the income scale in one year out of the ten and understates it the other nine years.

My other point relates to the statistics of the distribution of property. The most important facts that we have, and those most frequently quoted, have been gleaned from probate records. I confess that I have little confidence in the inferences that have been drawn from these figures. The principal difficulty is the difference between the age distribution of decedents and the age distribution of the living population. In England, for example, while the average age at death of that part of the population which lives to be at least twenty years old is over sixty years, the average age of living persons over twenty is about forty. Now as men grow older they often grow richer, and this fact has been shown by Mr. Bernard Mallett to have a very important bearing upon the proportion which the value of the estates annually passing from one generation to another makes of the aggregate capital value of the national wealth. For example, in the fiscal year 1913-14, the average value of the taxable estates left by persons dying in that year was £4150. But those dying at between twenty-five and thirty-five years of age left estates of an average value of only £1600. The average values of the estates which had been accumulated by persons dying between the ages of sixty-five and seventy-five was nearly £4200, while persons who lived to be more than seventy-five left estates with an average value of over £6000. In the United States, where fewer persons start with the initial advantage of inherited wealth, these differences are likely to be considerably greater. Now the danger is not that the probate records will give us an exaggerated idea of the aggregate money value of property holdings, for we have other and better sources of information on this point. But as used by Dr. Spahr and even as used by so careful and competent a student as Dr.

King, they give an impression of a higher degree of inequality in the distribution of property than really exists. Not only do many men grow richer as they grow older, but some men grow rich faster than others, while some men, especially among those with little property, grow poorer as they grow older. It follows that the inequality of possessions among persons at the end of life must be very much greater than among the living population. Statistics of the sizes of estates admitted to probate are nearly worthless unless they are accompanied by statistics of the ages of the decedents. And with the probate statistics thrown out of court, there remains virtually nothing that gives us any adequate notion of the distribution of accumulated wealth in the United States.

IV

Without knowledge of the way in which the ownership of property is distributed, with our income statistics largely guesswork, and their meaning and significance uncertain, we have naturally set the problem of the personal distribution of wealth in terms of the things we could see and be certain of: enormous fortunes at one extreme, a great mass of workers near the poverty line at the other. Right though we be in taking these things seriously, we should hardly be willing to rest content with a social program made up of anti-monopoly laws, inheritance taxation, and labor legislation, and a philosophy of economic reform compounded of philanthrophy, of an avowed faith in industrial democracy, and of an attitude of jealous aggression toward great riches. As economists we are interested, or ought to be interested, in knowing whether the present economic scheme is bound to end in disaster; whether, with a little patching, it can be made to get along; or whether its essential principles need to be safeguarded and maintained by giving a new meaning and a new emphasis to real equality of competitive opportunity. In no other way could so much light be thrown upon this fundamental problem as by a thoroughgoing and authoritative study of the actual distribution of property and incomes. We lack satisfactory methods of analysis and interpretation, but most of all we lack the facts. General impressions will not suffice; in matters like this we are right in deferring judgment until we know, and know accurately. It is not a matter of the extremes of the income scale, but of the whole range. In statistics the undistributed middle is prone to be quite

as dangerous as in logic. For the study of actual present tendencies the analysis of middle-class incomes is fundamentally important. It is one thing to explain the causes of poverty or the causes of large fortunes. It is another thing to know just how sound our economic life is at its core.

The task is much too large for any individual scholar. The first step is to secure adequate sources of information. With income taxes just coming into importance as sources of federal and state revenues, is the time not ripe for the economists and statisticians of the country to make a statement as to precisely what information they want and why they want it?